

REMARKS

In Applicants' Amendment and Response to Office Action filed April 30, 2001 an argument was presented that the instant invention allowed a "central computer ... to *continuously* monitor the stored amount of energy of a vehicle through the use of a stored amount of energy sensor operatively coupled to a wireless communication unit." Applicants Response to Office Action filed April 30, 2001, page 8. Applicants' request to clarify that statement by referring to the description contained in the specification. In the specification it clearly states that "the state of charge of the battery system, is preferably transmitted from the vehicle subsystem 18 to the central facility 12 at periodic and non-periodic intervals." Page 20, lines 18-19. As this is done by wireless communication, the statement simply means that the monitoring of the state of charge of a vehicle could be continuous i.e. non-periodic. As presented immediately below, the ability to monitor a vehicle's state of charge, in a vehicle sharing system, at any given time is distinct from the prior art relied upon by the Examiner.

To that end, Applicants maintain that the arguments presented in their Response filed April 30 are sufficient to overcome the Examiner's rejections, namely, the element of a vehicle sharing system wherein a central station is able to monitor the stored amount of energy of the vehicle regardless of time or location. This element is simply not disclosed, taught, or suggested in Tagami et al., United States patent 5,812,369. In contrast, the Tagami document refers to a shared vehicle rental system in which vehicle information is transmitted in very limited circumstances. For example, an incoming vehicle arrives at the returning area and if a parking switch in the returning area is turned on, then information relative to the last usage (travel details including the amount of energy consumed by the vehicle (col. 7, line 7)) is sent from a drive recorder through a third communication pole to the computer. Col. 6, lines 50-56. It is clear that Tagami requires that the vehicle be at a specific location to monitor the state of charge of a vehicle. Thus, Tagami does not disclose a vehicle sharing system wherein a stored amount of energy sensor located in the vehicle is operatively coupled to a communication device which allows the central station to monitor the stored amount of energy of a vehicle at any given time

and at any given location. Applicants appreciate Examiner's comment that a wireless vehicle monitoring system is not inherently *continuous*, however, as presented above, that is not what is argued here. Applicants' invention is distinct from the prior art cited by the Examiner simply because it involves a vehicle sharing system that allows for the monitoring of a vehicle's state of charge *at any given time*.

Notwithstanding, Applicants present new arguments, in conjunction with the amendments contained in the independent claims submitted herewith, that the instant invention is novel and nonobvious in light of the prior art relied upon by the Examiner. The newly amended claims include the element that a central computer system allocates vehicles to users in response to user input information regarding the user's intended trip. This universal amendment to independent claims 1, 11, and 19 is not new matter. This element is discussed in Applicants' specification; “[a] determination is made of the total charge necessary to safely make the trip, based on the expected destination, additional distance and/or additional time information entered by the user.” Page 12, lines 25-27. See also pages 10-12 of the specification for a more complete disclosure.

Tagami refers to a vehicle sharing system that differs fundamentally from Applicants' claimed system in the way that vehicles are selected. The Tagami document for example, refers to a vehicle sharing system in which the computer selects an available motor vehicle based on a user's *past usage* information. Col. 8, lines 28-29; col. 3, lines 13-21. For example, Tagami discloses that “[i]f the average traveled distance in the *past usage* recorded on the IC card of the user is relatively short, then the computer 60 selects, for the user, a motor vehicle C whose battery is not fully charged.” Col. 5, line 65 to col. 6, line 2. Tagami does not disclose, teach or suggest a vehicle sharing system wherein vehicle allocation is based on the user's immediate travel needs submitted by the user prior to allocation.

Applicants' claimed system is fundamentally different from, and superior to the system referred to in Tagami because, *inter alia*, a system that selects a vehicle for use based on a user's past usage will likely result in a situation whereby a vehicle is allocated to a user with an insufficient charge for the user's intended purpose. A vehicle sharing system that considers the

user's immediate needs or intended use in the allocation process, as in the present invention, provides for a more accurate selection, thereby greatly reducing the chance that a vehicle would run out of charge short of the user's intended destination. In addition, by determining the user's intended use of the vehicle, the system could more accurately predict the state of charge (for electric vehicles) that will be present when a vehicle is returned, thus enabling more efficient allocation of vehicles and charge facilities.

It is therefore apparent that Tagami does not teach or suggest a system in which a user's intended use of the vehicle is considered in the allocation process, as in Applicants' claimed invention.

Each of the newly amended independent claims is limited to a vehicle sharing system that considers the user-input information (intended travel information, intended time of use information, etc.) in the allocation of an appropriate vehicle. For example:

Claim 1 -- "a shared vehicle system wherein a central computer system allocates vehicles to users in response to user-input information regarding the user's intended trip ...."

Claim 11 -- "a computer system ... to select and allocate vehicles to users based on ... user-input information regarding the user's intended trip. "

Claim 19 -- "a vehicle sharing system, in which vehicles are allocated to users in response to user-input information regarding the user's intended trip ...."

As presented above, this element is not disclosed, taught, or suggested in Tagami.

Finally, vehicle allocation based on the users intended use of the vehicle allows for the more efficient allocation of a shared vehicle since it more accurately selects the appropriate vehicle. This is particularly important with the use of electric vehicles, which require specialized facilities for recharging. An example of the importance of this distinction is as follows: a user's intended detour from his "normal" trip is accounted for in the allocation process in Applicants' present invention because that information is submitted and considered in the allocation process. However, a detour according to the Tagami disclosure, could very well leave a user stranded after

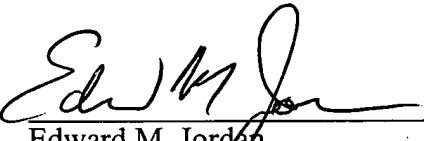
depleting the charge that was merely sufficient to meet his past usage need.

Applicants' respectfully submit that the intended use claim element puts independent claims 1, 11, 19, and the dependent claims that act to narrow their scope, into a condition of allowance and request notice thereof.

Pursuant to 37 C.F.R. § 1.25(b), the Commissioner is hereby authorized to charge any additional fees to Deposit Account 131241 or to credit any overpayment to the same for all matters during the prosecution of this application.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Prior pending claims:

1. (Twice Amended) A stored energy tracking system for a vehicle in a shared vehicle system wherein a central computer system allocates vehicles to users in response to ~~requests by users~~ user-input information regarding the user's intended trip, the vehicle having a stored energy source defining a stored amount of energy at any given time, the system comprising:
  - a sensor installed in the vehicle for sensing the stored amount of energy of the vehicle;
  - a vehicle subsystem including a wireless communication unit installed in the vehicle and operatively coupled to the sensor for transmitting stored amount of energy information corresponding to a stored amount of energy sensed by the sensor;
  - a central station including a computer system coupled in wireless communication with said wireless communication unit for receiving and processing stored amount of energy information and vehicle location information, transmitted by said wireless communication unit, for vehicle allocation by the central computer in a vehicle sharing system.
11. (Twice Amended) A vehicle sharing system operable with at least one port at which one or more vehicles from a fleet of vehicles may be shared among a plurality of users, each vehicle having a stored energy source defining a stored amount of energy at any given time, the system comprising:
  - a sensor associated with and installed on each vehicle for sensing the stored amount of energy of the associated vehicle;
  - a vehicle subsystem including a wireless communication unit associated with and installed on each vehicle and operatively coupled to the sensor on the associated vehicle for transmitting stored amount of energy information corresponding to a stored amount of energy sensed by the sensor;
  - a central station coupled in wireless communication with said wireless communication units, including a tracking system that provides vehicle location

information corresponding to the location of each vehicle and a computer system for receiving stored amount of energy information transmitted by said wireless communication unit and programmed to process stored amount of energy information and vehicle location information to select and allocate vehicles to users based on stored amount of energy information, ~~and~~ vehicle location information, and user-input information regarding the user's intended trip.

19. (Twice Amended) A stored energy tracking method for a vehicle in a vehicle sharing system, in which vehicles are allocated to users in response to ~~requests by users user-~~ input information regarding the user's intended trip, the vehicle having a stored energy source defining the stored amount of energy at any given time, the method comprising:

sensing the stored amount of energy of the vehicle with a sensor installed in the vehicle;

transmitting stored amount of energy information corresponding to stored amount of energy sensed by the sensor with a wireless communication unit installed in the vehicle;

receiving and processing stored amount of energy information and vehicle location information transmitted by said wireless communication unit at a central station for use in allocating vehicles by a central computer in a vehicle sharing system.

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